

Work Order ID 135615

Wednesday, August 12, 2015 4:06:14 PM

135615

Page 1

Item ID: D130-700-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bearpaw Wearplate
 Start Date: 8/07/15 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 8/12/15 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: AUG 17 2015 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
DSI 9434	A

100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and type labels per PPP D130-700-021 and DSI9434 001								

105	Pick Kit	0.00							
105									
Packaging	Memo	0.00							
Packaging									

110	QC4- 100% Inspect kits for completeness	0.00							
110									
QC	Memo	0.00							
Quality Control									

JAN 27 2016

JAN 28 2016

DAS
6
9-89

DAS
6
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 135615

Wednesday, August 12, 2015 4:06:14 PM

135615

Page 2

Item ID: D130-700-021

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearpaw Wearplate

Start Date: 8/07/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 8/12/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Packaging	0.00							
120							DAS 28	JAN 28 2016	
Packaging	Memo	0.00					9-89		
Packaging	Identify and pack for shipping as per PPP D130-700-021 and DSI9434 Location: FG128 PPP Rev: _____								
130	QC21- Final Inspection - Work Order Release	0.00							
130								JAN 29 2016	
QC	Memo	0.00							
Quality Control									

MCJ JAN 29 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, August 12, 2015 4:06:13 PM

Page 1

Work Order ID: 135615

135615

Parent Item: D130-700-021

D130-700-021

Parent Item Name: Bearpaw Wearplate

Start Date: 8/07/15

Required Date: 8/12/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 10.12.09 as per dsi revA DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-12A *AN4-12A* Bolt		Purchased	No			105	Each	119.0000	4	4		DAS 6 9-89	DAS 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG 10
120423 10
ST344 109
m131957 109

AN4-15A

Purchased

No

105

Each

207.0000

8

8

DAS
6
9-89

AN4-15A

Bolt

133769

DAS
27
9-89

Location

Loc Qty

Loc Code

GA 40
120449 40
ST325A 3
m132317 3
ST343 164
m132551 164

DAS
28
9-89

D3862-041

Manufactured

No

105

Each

2.0000

2

2

D3862-041

Wearplate

DAS
6
9-89

JAN 27 2016

Location

Loc Qty

Loc Code

ENG 1
127742 1
ST613 1
127742 1

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					

Picklist Print

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Page 2

Work Order ID: 135615

135615

Parent Item: D130-700-021

D130-700-021

Parent Item Name: Bearpaw Wearplate

Start Date: 8/07/15

Required Date: 8/12/15

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

105

Each

2,772.000

12

12

MS21042L 4

133769

Locknut

DAS
6
9-89

DAS
27
9-89

JAN 27 2016

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

2

m124231

2

GA

134

m127813

134

ST260a

170

m130799

56

m131803

6

m132262

108

ST305

2466

m128300

8

m128798

12

m130388

7

m130922

97

m131618

12

m132123

56

m132382

2274

Wednesday, August 12, 2015 4:06:14 PM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Picklist Print

Wednesday, August 12, 2015 4:06:14 PM

Page 3

Work Order ID: 135615

135615

Parent Item: D130-700-021

D130-700-021

Parent Item Name: Bearpaw Wearplate

Start Date: 8/07/15

Required Date: 8/12/15

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0463J

Purchased

No

105

Each

3,062.000

12

12

NAS1149D0463.J

WASHER

M 134039

DAS
6
9-89
27
8-89

JAN 27 2016

Location

Loc Qty

Loc Code

GA

41

M129390

41

ST260a

1000

M132677

1000

ST269

2021

M127904

20

M129682

86

M130799

371

M132035

1419

M132317

125

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

**TO AMEND INSTALLATION INSTRUCTIONS IIN-D130-700 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D130-700 REV. 0**

The D130-700-021 Wearplate kit can be installed on D130-700-011 Bearpaw installations. The D3862-041 Wearplates should be installed on the D3167-1 Bearpaws as shown in Figure 1 on Sheet 2 of this Service Instruction. The Bearpaws should otherwise be installed on the skidtube per installation instructions IIN-D130-700 Rev A.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 1 on Sheet 2 of this service instruction.

Installation	Weight	Lateral		Longitudinal	
		Arm	Moment	Arm	Moment
D130-700-021 Wearplate Kit	3.22 lb 1.46 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	159.8 in 4.05 m	514.6 in-lb 5.91 m-kg

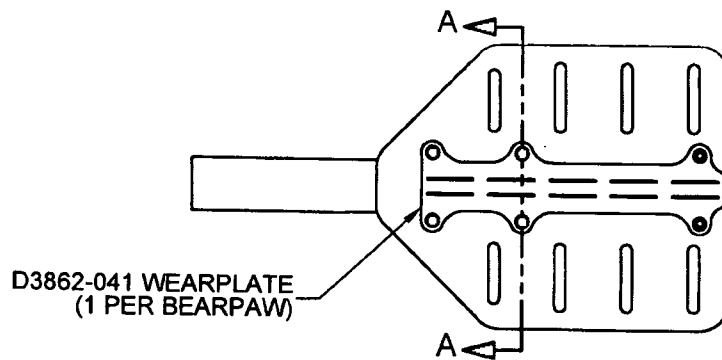
QTY. -021	PART NUMBER	DESCRIPTION
X	D130-700-021	Wearplate Kit
2	D3862-041	Wearplate
4	AN4-12A	Bolt
8	AN4-15A	Bolt
12	NAS1149D0463J	Washer
12	MS21042L4	Nut or (MS21042-4)

1356-15-MCS
 15-08-17

APPROVED
BY: 
D. SHEPHERD (DE # 02)

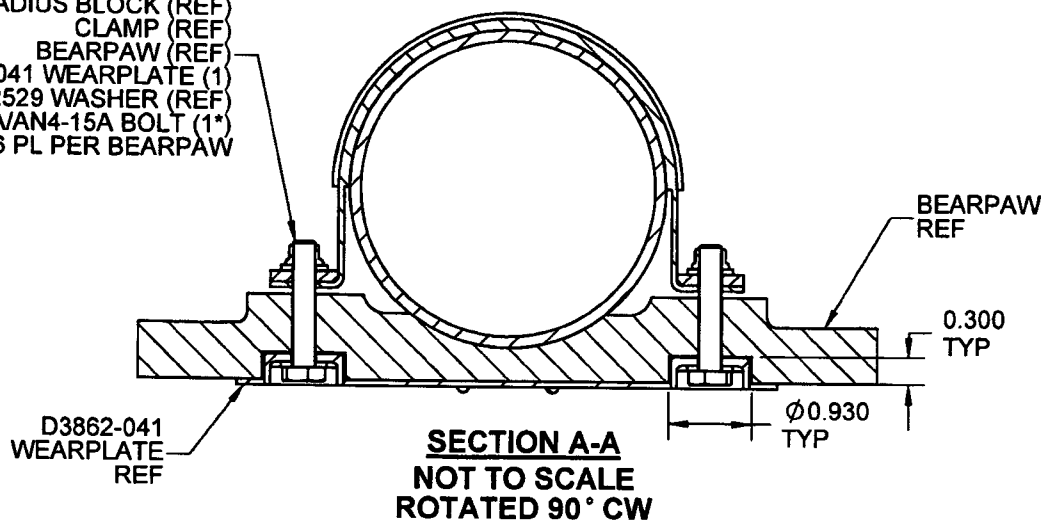
DATE: 09.01.15
CERT. NO.: SH93-4
ISSUE NO.: 7

A	NEW ISSUE	BY	09.01.15
REV.	DESCRIPTION		DATE
DESIGN	[Signature]	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED			
MFG. APPR.	N/A	DRAWING NO. DSI 9434	REV. A SHEET 1 OF 2
APPROVED	[Signature]	TITLE WEARPLATE KIT	SCALE
DE APPR.		NTS	
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



BOTTOM VIEW

MS21042L4 NUT(1)
 NAS1149D0463J WASHER (1*)
 D2274 RADIUS BLOCK (REF)
 CLAMP (REF)
 BEARPAW (REF)
 D3862-041 WEARPLATE (1)
 D2529 WASHER (REF)
 AN4-12A/AN4-15A BOLT (1*)
 6 PL PER BEARPAW



* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-12A/15A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

FIGURE 1: D130-700-021 WEARPLATE KIT

CANADA
 DEPARTMENT OF TRANSPORT
 AIRCRAFT CERTIFICATION
 BRANCH
 DAO # 01-O-01

APPROVED

BY: *[Signature]*
 D. SHEPHERD (DE # 02)

DATE: 09.01.15
 CERT. NO.: SH93-4
 ISSUE NO.: 7

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9434	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	WEARPLATE KIT	NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

INTENSE ONLY

5 PARTS LIST

Qty -011	Qty -021	Part Number	Description
X		D130-700-011	BEARPAW INSTALLATION
	X	D130-700-021	WEARPLATE KIT
4		D2182B060	Rubber Cushion
12		D2274	Radius Block
12		D2529	Washer
4		D2519	Clamp
2		D3167-1	Bearpaw
4		D3171-1	Angle
	2	D3862-041	Wearplate
4	4	AN4-12A	Bolt
8	8	AN4-15A	Bolt
12	12	NAS1149D0463J	Washer
12	12	MS21042L4	Nut (or MS21042-4)

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Revision: B

Date: 14.12.02